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Foreword: Trends in Functional Differentiation

Steffen Roth

Social change can invalidate familiar definitions of society (Lee, 2000). The fundamental units of archaic societies were similar and coequal *segments* such as families, clans, and tribes until some segments started to exert larger influence on surrounding segments than others (see Table 1 in Roth & Schütz, 2015; p. ??). Although centrality is not necessarily an advantage, in many cases *centralization* has been the basis for social *stratification*, the latter of which is characterized by the distinction of neither similar nor equal strata like castes, estates, or classes. Rules of kin- and clanship continue to apply in stratified society, however, now only within the margins of stratification. In spite of a still strong prevalence of hierarchies, most prominently Niklas Luhmann (1977, 1987) has argued that a *functional differentiation* of both dissimilar and equal subsystems has replaced stratification as dominant form of social differentiation. In the same breath as organization, the distinction of function systems such as the political system, the economy, science, art, religion, law, sport, health, education, and the mass media is therefore said to be the key principle of modern society (Baecker, 2007; Beck, Bonss, & Lau, 2003; Beck & Lau, 2005; Bergthaller & Schinko, 2011; Brier, 2007; Guy, 2013; Kjaer, 2010; La Cour, 2006; Laermans, 2007; Schirmer & Hadamek, 2007; Sevänen, 2006; Smart, 1990).

Modern social theories and sciences in general and sociology—the *science of modernity* (Giddens, 1996), in particular—however, imply rather than apply functional differentiation and remain preoccupied with the cross-tabling of variables associated with earlier forms of differentiation. This is not to assume that sociology does not at all take the key categories of modern society into account. Looking for sociological core concepts, Keith and Ender (2004) analyzed 16 and 19 sociological textbooks from 1940 and 1990, respectively, and identified six of ten function systems, namely education, politics, religion, the economy, health, and science, as core concepts of sociology. Another meta-analysis of English-language articles indexed in the Sociological Abstracts database between 1970 and 1999 by James Moody and Ryan Light (2006) also suggests that art, health, science, education, and the legal system play a major role in sociological discourses. Still, the same studies also unveil that functional differentiations are clearly not as popular as the analysis of more classical categories such as race, culture, family, gender, class, or sexuality. This appraisal is also supported by a JSTOR full-text search of common sociological terms (David, 2005) and by a comparison of French and British sociology textbooks (Schrecker, 2008). References to function systems are cursory rather than systematic, with most publications centering one or a few function systems without much further

reflection on why the focus is on the observed and not the other function systems. The key variables of modernity hence remain blind spots or theoretically motivated constants of most sociology.

The problem with this conceptual gap is that social theories and sciences have always featured a trend toward the observation of trends in functional differentiation such as the secularization, politicization, mediatization, aestheticization, juridification, or, most popularly, the economization of society (Alexander, 1985; Alexander & Colomy, 1990; Blumler & Kavanagh, 1999; Çalışkan & Callon, 2009; Chomsky, 1997, 1999; Habermas & McCarthy, 1985; Lash, 2007; Polanyi, 1957; Roth, 2015; Thompson, 2006; Urry, 2010; Wallerstein, 2004). These trend statements, however, inevitably call for a systematic reflection not only on the individual trends, but also on the full concept of functional differentiation. The observation of an increasing economization, for example, does not indicate an economized society if the context of this economization is an even more politicized society. Unsystematic trend statements therefore risk being not only ethnocentric (Pérez-Agote, 2014), but also remaining contingent on preconceived beliefs on the importance and unimportance of particular function systems. It is therefore both no surprise and a veritable research problem that the other key concept of modernity, organization, is predominantly associated with power (Negro, Koçak, & Hsu, 2010), and not belief or beauty; and that it is economic organizations that most colleagues tend to study nowadays (Bort & Kieser, 2011; Courpasson, 2013). In readily zooming in on political and economical issues, most social theories and sciences perform rather than study an assumed political and economic bias of modern societies,¹ thus projecting it to the future. Emerging *culturomic* research on trends in functional differentiation (Roth, 2014), however, suggests that it is better to exercise caution when it comes to the definition of modern societies as economized, and a look at the role of religion in earlier and distant societies also suggests that the importance of individual function systems to particular societies is, and always has been, subject to change. The challenge is hence to explore which directions this change may take in the future (Roth & Kaivo-oja, 2015).

So far, explorations of this kind have been complicated not only by a lack of pertinent methodologies, but also by the entirely correct idea that no function system is essentially more important than another (Jönhill, 2012; Vanderstraeten, 2005). Yet, this contradiction can be resolved by assuming “that it is not despite, but because of their basic equivalence that function systems can be ranked at all because if the function systems were essentially unequal, they would already be ranked and, therefore, could no longer be ranked” (Roth, 2014, p. 35). The fundamental equivalence of the function systems may therefore be treated as a prerequisite for (rather than a result of) research in the relative importance of individual function systems and the corresponding trends in functional differentiation.

1. The plural refers to subsystems of society.

The first article in this special issue, “Ten Systems: Toward a Canon of Function Systems” by Steffen Roth and Anton Schütz, delves into the conceptual foundations of such *interfunctional social research*. Our main concern is how function systems may be distinguished from non-function systems and, thus, also how many function systems actually exist. We develop our canonical answer to this question in reference to Niklas Luhmann’s distinction of observer perspectives (Luhmann & Barrett, 2013, p. 96), which we use to distinguish function systems from performance systems and reflection systems. Based on this, we identify what we ironically call a “canon” of ten function systems, for which we also present the corresponding media, codes, and programs. We assume that our disciplined approach to functional differentiation facilitates further interfunctional comparative social research, one example of which is the second article in this special issue.

In “Societal Self-Observation in the Time of Datafication: Interfunctional Analysis of the Chilean Open Data Web Portal,” Maximilian Heimstädt presents his analysis of the *Portal de Datos Públicos*, an open data web portal that makes large amounts of Chilean governmental datasets available to the public. He finds that this datafied political self-observation of the Chilean society features a strong bias to political and economic categories as well as a complete neglect of religion. Surprisingly, health plays a strong role in this political economic vision of the Chilean society, too, which is even more surprising because the same bias to politics, economy, and health combined with a thorough neglect of religion can also be observed in leading futures and foresight studies journals (Roth & Kaivo-oja, 2015).

Claudia Ritzi and Matthias Lemke further zoom in on the political economic bias of societal self-observations. In their article, “Is There No Alternative? The Discursive Formation of Neoliberal Power,” the authors follow a blended reading approach combining text mining and manual reading of the Leipzig Corpus Miner as well as four major German newspapers to analyze whether the so-called TINA rhetoric claiming that there is no alternative to neoliberal capitalism has been dominant in the German political discourse from 1947 through 2012. Their results show that the neoliberal rhetoric is both influential and non-/hegemonic because it is countered by a strong critical meta-discourse on negative impacts of neoliberalism on the German society. In this sense, their research also empirically supports the idea that capitalist self-descriptions of modern societies are co-performed by both capitalists and anti-capitalists (see Roth, 2015).

The voice off in this special issue of *Cybernetics and Human Knowing* is a noise off this time: Justine Grønæk Pors’ text, “Is the system badly named? Noise as the paradoxical (non-) foundation of social systems theory,” may be read as a preferably constant reminder of the paradox nature of observation. In revitalising the concept, she observes noise not merely as an external disturbance, but also as a system’s resource. She thus opens the observation of autopoietically closed systems insofar as she observes that particularly sophisticated systems may observe noise as disturbance located on the other side of their own constitutive distinction and, thus, as their own piece of information.

Justine's reminder is critical as we may indeed consider functional differentiation to be particularly disturbing, although not yet noisy information in modern social research in general and social systems theory in particular. This is true because, within our own theory of difference and differentiation, we are dealing here with a form of differentiation that still emerges through a cross-tabling of classical sociological distinctions (see Table 1 in Roth & Schütz, 2015; p. ?) rather than a re-entry of earlier forms of social differentiation. In this particular way, functional differentiation is still challenging our otherwise well-oiled theory machine, while with regard to the more general discourses in social theory and science we may again state that interactions and interplays of function systems are as under-researched as are the interfaces of functional differentiation and the earlier forms of differentiation. The prospects for interfunctional social research could not be better.

References

- Alexander, J. C. (1985). *Neofunctionalism*. Beverly Hills, CA: Sage Publications.
- Alexander, J. C., & Colomy, P. B. (1990). *Differentiation theory and social change: Comparative and historical perspectives*. New York: Columbia University Press.
- Baecker, D. (2007). The network synthesis of social action I: Towards a sociological theory of next society. *Cybernetics & Human Knowing*, 14(4), 9-42.
- Beck, U., Bonss, W., & Lau, C. (2003). The theory of reflexive modernization. *Theory, Culture & Society*, 20(2), 1-33.
- Beck, U., & Lau, C. (2005). Second modernity as a research agenda: Theoretical and empirical explorations in the "meta-change" of modern society. *The British Journal of Sociology*, 56(4), 525-557.
- Bergthaller, H., & Schinko, C. (2011). Introduction: From national cultures to the semantics of modern society. In H. Bergthaller, & C. Schinko (Eds.), *Addressing Modernity: Social Systems Theory and U.S. Cultures* (pp. 5-34). Amsterdam: Edition Rodopi.
- Blumler, J. G., & Kavanagh, D. (1999). The third age of political communication: Influences and features. *Political Communication*, 16(3), 209-230.
- Bort, S., & Kieser, A. (2011). Fashion in organization theory: An empirical analysis of the diffusion of theoretical concepts. *Organization Studies*, 32(5), 655-681.
- Brier, S. (2007). Applying Luhmann's system theory as part of a transdisciplinary frame for communication science. *Cybernetics & Human Knowing*, 14(2-3), 29-65.
- Çalışkan, K., & Callon, M. (2009). Economization, part 1: Shifting attention from the economy towards processes of economization. *Economy and Society*, 38(3), 369-398.
- Chomsky, N. (1997). *Media control. The spectacular achievements of propaganda*. New York: Seven Stories Press.
- Chomsky, N. (1999). *Profit over people: Neoliberalism and global order*. New York: Seven Stories Press.
- Courpasson, D. (2013). On the erosion of 'passionate scholarship.' *Organization Studies*, 34(9), 1243-1249.
- David, S. (2005). Looking for the core in the wrong place: Comment on Keith and Ender, TS, 2004. *Teaching Sociology*, 33(1), 81-89.
- Giddens, A. (1996). In defense of sociology. *Essays, Interpretations and Rejoinders*. Cambridge, UK: Polity Press.
- Guy, J.-S. (2013). Why does society describe itself as global? Re-examining the relation between globalization and the states from a second-order perspective. *Current Sociology*, 61(7), 1040-1057.
- Habermas, J., & McCarthy, T. (1985). *The theory of communicative action: Vol. 2. Lifeworld and system: A critique of functionalist reason*. Boston: Beacon Press.
- Jönhill, J. I. (2012). Inclusion and exclusion—A guiding distinction to the understanding of issues of cultural background. *Systems Research and Behavioral Science*, 29(4), 387-401.
- Keith, B., & Ender, M. G. (2004). The sociological core: Conceptual patterns and idiosyncrasies in the structure and content of introductory sociology textbooks, 1940-2000. *Teaching Sociology*, 32(1), 19-36.
- Kjaer, P. F. (2010). The metamorphosis of the functional synthesis: A continental European perspective on governance, law, and the political in the transnational space. *Wisconsin Law Review*, 2010(2), 489-533.
- La Cour, A. (2006). The concept of environment in systems theory. *Cybernetics & Human Knowing*, 13(2), 41-55.
- Laermans, R. (2007). Theorizing culture, or reading Luhmann against Luhmann. *Cybernetics & Human Knowing*, 14(2-3), 67-83.
- Lash, S. (2007). Capitalism and metaphysics. *Theory, culture & society*, 24(5), 1-26.
- Lee, D. (2000). The society of society: The grand finale of Niklas Luhmann. *Sociological Theory*, 18(2), 320-330.
- Luhmann, N. (1977). Differentiation of society. *The Canadian Journal of Sociology* (Cahiers canadiens de sociologie), 2(1), 29-53.
- Luhmann, N. (1987). The representation of society within society. *Current Sociology*, 35(2), 101-108.

- Luhmann, N., & Barrett, R. (2013). *Theory of society, Volume 2*. Palo Alto, CA: Stanford University Press.
- Moody, J., & Light, R. (2006). A view from above: The evolving sociological landscape. *The American Sociologist*, 37(2), 67-86.
- Negro, G., Koçak, Ö., & Hsu, G. (2010). Research on categories in the sociology of organizations. *Research in the Sociology of Organizations*, 31, 3-35.
- Pérez-Agote, A. (2014). The notion of secularization: Drawing the boundaries of its contemporary scientific validity. *Current Sociology*, 62(6), 886-904.
- Polanyi, K. (1957). *The great transformation: The political and economic origins of our time*. Boston: Beacon Press.
- Roth, S. (2014). Fashionable functions. A Google ngram view of trends in functional differentiation (1800-2000). *International Journal of Technology and Human Interaction*, 10(3), 88-102.
- Roth (2015a). Free economy! On 3628800 alternatives of and to capitalism. *Journal of Interdisciplinary Economics*, 27(2), 107-128.
- Roth, S., & Kaivo-oja, J. (2015). Is the future a political economy? Functional analysis of three leading foresight and futures studies journals. *Futures*, DOI: 10.1016/j.futures.2015.10.002 (Online first 22.10.2015; see URL <http://www.sciencedirect.com/science/article/pii/S001632871500136610>)
- Roth, S., & Schütz, A. (2015). Ten systems: Toward a canon of function systems. *Cybernetics and Human Knowing*, 22(4), [this issue](#).
- Schirmer, W., & C. Hadamek (2007). Steering as paradox: The Ambiguous Role of the Political System in Modern Society. *Cybernetics & Human Knowing*, 14(2-3), 133-150.
- Schrecker, C. (2008). Textbooks and sociology: A Franco—British Comparison. *Current Sociology*, 56(2), 201-219.
- Sevänen, E. (2006). A long-term contrast in systemic sociology. *Cybernetics & Human Knowing*, 13(2), 64-93.
- Smart, B. (1990). On the disorder of things: Sociology, postmodernity and the “end of the social.” *Sociology*, 24(3), 397-416.
- Thompson, G. F. (2006). Religious fundamentalisms, territories and “globalization.” *Economy and Society*, 36(1), 19-50.
- Urry, J. (2010). Consuming the planet to excess. *Theory, Culture & Society*, 27(2-3), 191-212.
- Vanderstraeten, R. (2005). System and environment: Notes on the autopoiesis of modern society. *Systems Research and Behavioral Science*, 22(6), 471-481.
- Wallerstein, I. (2004). *World-systems analysis: An introduction*. Durham, NC: Duke University Press.

Selected Publications of Steffen Roth

Journal articles

1. Roth, S. and Kaivo-oja, J. (2015), Is the future a political economy? Functional analysis of three leading foresight and futures studies journals, *Futures*, online first October 22, 2015.
2. Roth, S. (in press), Growth and function. A viral research program for next organisations, *International Journal of Technology Management*, forthcoming.
3. Roth, S. and Dana, L. (2016), What's your self-made expat story? Netnography of entrepreneurial re-users of a popular semantic, *International Journal of Entrepreneurship and Small Business*, forthcoming.
4. Roth, S. (2015), Free economy! On 3628800 alternatives of and to capitalism, *Journal of Interdisciplinary Economics*, Vol 27 No. 2, 107-128.
5. Roth, S. (2015), Serious gamification. On the redesign of a popular paradox, *Games and Culture*, online first April 2015.
6. Roth, S., Schneckenberg, D. and Tsai, C.-W. (2015), The ludic drive as innovation driver: Introduction to the gamification of innovation, *Creativity and Innovation Management*, Vol. 24 No. 2, pp. 300-306.
7. Roth, S. (2014), The multifunctional organization: Two cases for a critical update for research programs in management and organization, *Tamara: Journal for Critical Organization Inquiry*, Vol. 12 No. 3, pp. 37-54.
8. Roth, S. (2014), Fashionable functions. A Google ngram view of trends in functional differentiation (1800-2000), *International Journal of Technology and Human Interaction*, Vol. 10 No. 2, 34-58.
9. Roth, S. (2014), Booties, bounties, business models. A map to the next red oceans, *International Journal of Entrepreneurship and Small Business*, Vol. 22 No. 4, 439-448.
10. Roth, S. (2014), The eye-patch of the beholder. Introduction to entrepreneurship and piracy, *International Journal of Entrepreneurship and Small Business*, Vol. 22 No. 4, 399-407.
11. Roth, S. (2014), The things that go without saying. On performative differences between business value communication and communication on business values, *International Journal of Business Performance Management*, Vol. 15 No. 3, 175-191.
12. Roth, S. (2014), Coining societies. An inter-functional comparative analysis of the Euro, *Innovation: The European Journal of Social Sciences*, Vol. 27 No. 4, 99-118.
13. Roth, S. (2013), Common values? Fifty-two cases of value semantics copying on corporate websites, *Human Systems Management*, Vol. 32 No. 4, pp. 249-265.
14. Roth, S., Kaivo-oja, J. and Hirschmann, T. (2013), Smart regions. Two cases of crowdsourcing for regional development, *International Journal of Entrepreneurship and Small Business*, Vol. 20 No. 3, pp. 272-285.
15. Roth, S. (2013), Dying is only human. The case death makes for the immortality of the person, *Tamara: Journal for Critical Organization Inquiry*, Vol. 11 No. 2, pp. 37-41.

16. Roth, S. (2012), Leaving commonplaces on the commonplace. Cornerstones of a polyphonic market theory, *Tamara: Journal for Critical Organization Inquiry*, Vol. 10 No. 3, pp. 43-52.
17. Roth, S. (2012), The moral of functional differentiation. A new horizon for descriptive innovation ethics, *Electronic Journal of Business Ethics and Organization Studies*, Vol. 17 No. 2, pp. 27-34.
18. Jaccard, D. and Roth, S. (2012), Formation à la gestion de projet et simulations, *Revue Economique et Sociale*, Vol. 70 No. 2, pp. 79-88.
19. Roth, S. (2011), Les deux angletterres et le continent. Anglophone sociology as the guardian of Old European semantics, *Journal of Sociocybernetics*, Vol. 9 No. 1-2, pp. 19-34.
20. Roth, S. (2011), Erinnerungsdesign in Armenien. Ein Staat an seinen Grenzen, *Revue für Postheroisches Management*, Heft 8 (Design Thinking), pp. 106-111.
21. Roth, S. (2010), The Diaspora as a nation's capital: Crowdsourcing strategies for the Caucasus, *International Journal of Transition and Innovation Systems*, Vol. 1 No. 1, pp. 44-58.
22. Roth, S. (2009), New for whom? Initial images from the social dimension of innovation, *International Journal of Innovation and Sustainable Development*, Vol. 4 No. 4, pp. 231-252 [VHB].
23. Roth, S., and Aderhold, J. (2008), World society on the couch: anti-terror consultancy as an object and test-bed of professional sociology, *HUMSEC Journal*, Vol. 2, No. 1, pp. 67-83.

Edited Volumes and Issues

24. Roth, S. (2015), The gamification of innovation, Special Section of Creativity and Innovation Management, forthcoming [FNEGE, CNRS, JCR].
25. Roth, S. (2014), Entrepreneurship and piracy, Special Issue of the International Journal of Entrepreneurship and Small Business, Vol. 22 No. 4 [FNEGE, CNRS].
26. Roth, S. (2012), The multimedia organization, Special Issue of *Tamara: Journal for Critical Organization Inquiry*, Vol. 10 No. 3 [ABS].
27. Scheiber, L., Roth, S. and Reichel, A. (2011), The technology of innovation, Special Issue of the International Journal of Innovation and Sustainable Development, Vol. 5 No. 2-3, 101-104.
28. Roth, S., Wetzel, R. and Müller, K. (2011), Non-technological and non-economic dimensions of innovation systems, Special Issue of the International Journal of Innovation and Regional Development, Vol. 3, No. 1.
29. Müller, K., Roth, S. and Žák, M. (2010), The social dimension of innovation, Prague, Linde.
30. Roth, S., Scheiber, L. and Wetzel, R. (2010), Organisation multimedial. Zum polyphonen Programm der nächsten Organisation, Heidelberg, Carl Auer.
31. Roth, S. (2009) Non-technological and non-economic innovations: Contributions to a theory of robust innovation, Bern, Peter Lang.

Books

32. Roth, S. (2013) The multimedia organization. Functional differentiations on organizational identity. Geneva, University of Geneva.
33. Roth, S. (2010) Markt ist nicht gleich Wirtschaft. These zur Begründung einer allgemeinen Marktsoziologie. Heidelberg, Carl Auer Verlag.

Book Chapters

34. Roth, S., Mkrtchyan, A. and Vartikyan, A. (2011), Armenia, in Barnett, G. and Golson, J. G. (eds), Encyclopedia of social networks, Thousand Oaks, SAGE Publishing, pp. 56-57.
35. Roth, S. (2010), Zu den Grenzen des Gemeinplatzes vom wirtschaftlichen Markt: Ecksteine einer allgemeinen Marktsoziologie, in Pahl, H. und Meyer, L. (Hrsg), Gesellschaftstheorie der Geldwirtschaft, Marburg, Metropolis.
36. Roth, S. (2009), Introduction. Towards a theory of robust innovation. In Roth, S. (ed.) Non-technological and Non-Economic Innovations: Contributions to a Theory of Robust Innovation, Bern, Peter Lang.
37. Рот, С. (2009), Каковы перспективы краудсорсинга? Транснациональные стратегии открытых инноваций для предотвращения “утечки умов” из стран СНГ Перевод с английского, Пипия, Л. К. (сост.), Общественные и гуманитарные науки: тенденции развития и перспективы сотрудничества, М., Ин-т проблем развития науки РАН.

Working Papers

38. Roth, S. (2014), A Forest for the Trees. The Tetralemmatic Re-/Form of the Paradox in Management and Organization, Change Management and Organizational Behavior eJournal, Vol. 5 No. 34. Download.
39. Roth, S. (2014), Ten systems: Toward a canon of function systems, Cognitive Social Science eJournal, Vol. 6 No. 134. Download.
40. Roth, S. (2014), The form ‘serious game’. On the resolution of a popular paradox, Cognition and the Arts eJournal, Vol. 6 No. 23. Download.
41. Roth, S. (2012), Die zehn Systeme. Ein Beitrag zur Kanonisierung der Funktionssysteme, Social and Political Philosophy eJournal, Vol 6 No. 12. Download.